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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,245	09/12/2003	Bhashyam Ramesh	NCR 11092	8704

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EXAMINER	
CORRIELUS, JEAN M	
ART UNIT	**PAPER NUMBER**
2162	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/661,245	RAMESH ET AL.	
	Examiner	Art Unit	
	Jean M. Corrielus	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is response the amendment filed on October 10, 2006, in which claims 1-14 are presented for further examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

Claim Objections

3. Claims 1-12 are objected to because of the following informalities: claim 1, line 4 "the frequency" should be –a frequency--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "identifying R unique n-grams $t_1....R$ in the string; for every unique n-gram T_s, if the frequency of T_s in a set of n-gram statistics is not greater than a first threshold: clustering the string with a cluster associated with T_s;

Otherwise, for every other n-gram Tv in the string T1...R, except S, if the frequency of n-gram pair Tv is greater than the first threshold; clustering the string with a cluster associated with Ts; otherwise: for every other n-gram TV in the string T1...R, except S: if the frequency of n-gram tV is greater than the first threshold: if the frequency of an n-gram pair Ts-Tv is not greater than a second threshold: clustering the string with a cluster associated with the n-gram pair Ts-TV; otherwise: for every other n-gram Tx in the string T1...R, except S and v: associated with an n-gram triple Ts-Tv-Tx; otherwise : do nothing.

Since, R, T1...R, Ts, Tv , Tx and T1...R, except S are not defined in the claims such variable are not given patentable weight. For the purpose of examination the examiner has at least interpret the ***"identifying R unique n-grams T1....R in the string"*** as "identifying an unique n-grams in the string";

"for every unique n-gram Ts, if the frequency of Ts in a set of n-gram statistics is not greater than a first threshold" as

--for every unique n-gram: if a frequency of in a set of n-gram statistics is not greater than a first threshold--;

"for every other n-gram TV in the string T1...R, except S: if the frequency of n-gram tV is greater than the first threshold: if the frequency of an n-gram pair Ts-Tv is not greater than a second threshold: clustering the string with a cluster associated with the n-gram pair Ts-TV" as

--for every other n-gram in the string: if the frequency of n-gram is greater than the first threshold: if the frequency of an n-gram pair is not greater than a second threshold: clustering the string with a cluster associated with the n-gram pair--;

"for every other n-gram Tx in the string T1...R, except S and v: associated with an n-gram triple Ts-Tv-Tx" as

--for every other n-gram in the string: associated with an n-gram triple--.

Secondly, the claim does not appear to have no claimed result under the condition when **the frequency of n-gram pair Ts is greater than the first threshold; if the frequency of n-gram Tv is not greater than the first threshold; if the frequency of an n-gram pair *Ts-Tv* is greater than a second threshold.**

Second, claim recites, "if the frequency of n-gram pair Ts-Tv is not greater than a second threshold, associating the string with a cluster associated with the n-gram pair Ts-Tv". The claim does not appear to have no claimed result under the condition where **the frequency of n-gram pair Tv is greater than the second threshold.**

Claim 6 recites "for every unique n-gram Ts, if the frequency of Ts in a set of n-gram statistics is not greater than a first threshold, associating the string with a cluster associated with Ts;

Otherwise, for every unique set of i n-gram Tu in the string T1...R, except S, if the frequency of n-gram pair Tv is greater than the first threshold". The claim does not appear to have no claimed result under the condition where **the frequency of n-gram pair Tv is greater than the first threshold.** Second, claim recites, "if the frequency of n-gram pair Ts-Tu is not greater than a second threshold, associating the string with a cluster associated with the n-gram pair Ts-Tu". The claim does not appear to have no

claimed result under the condition where **the frequency of n-gram pair Tv is greater than the second threshold.**

Claim 10 recites "for every unique n-gram Ts, if the frequency of Ts in a set of n-gram statistics is not greater than a first threshold, associating the string with a cluster associated with Ts;

Otherwise, for every other n-gram Tv in the string T1...R, except S, if the frequency of n-gram pair Tv is greater than the first threshold". The claim does not appear to have no claimed result under the condition where **the frequency of n-gram pair Tv is greater than the first threshold.** Second, claim recites, "if the frequency of n-gram pair Ts-Tv is not greater than a second threshold, associating the string with a cluster associated with the n-gram pair Ts-Tv". The claim does not appear to have no claimed result under the condition where **the frequency of n-gram pair Tv is greater than the second threshold.**

The dependent claims 2, 3, 7-9 and 11-12 are rejected for fully incorporating the errors of their respective base claims by dependency.

6. Claims 1 and 10 recites the limitation "the n-gram pair" and "the n-gram triple". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-10-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to an abstract idea.

Claim 1 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Even though there is physical transformation performed in the claim, however, such physical transformation does not produce a useful, concrete and tangible result. The claim 1 recites, "otherwise, do nothing". Such a limitation does not produce any useful, concrete and tangible result. Applicant is advised to amend the claims to show the series of steps as recited in claim 1 produce a tangible result ***being executed*** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 2-3 are rejected for fully incorporating the errors of their respective base claims by dependency.

Claim 4 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result nor provide a physical transformation in the technology art to form the basis of statutory subject matter under 35 U.S.C. 101. Claim 4 recites a series of steps. However, the invention, as claimed, is directed to the manipulation of an abstract idea with no practical application in the technology arts, there

is no physical transformation performed in the claim nor providing a concrete, useful, and tangible result. The claim 4, recites "associating each string with zero or more cluster associated with low frequency n-grams form that string" and "associating each string with zero or more cluster associated with low frequency pairs of high frequency n-grams from that string". These limitations do not produce any useful, concrete and tangible result. Applicant is advised to amend the claims to show the series of steps as recited in claim 1 produce a tangible result ***being executed*** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claim 5 is rejected for fully incorporating the errors of their respective base claims by dependency.

Claim 6 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result nor provide a physical transformation in the technology art to form the basis of statutory subject matter under 35 U.S.C. 101. Claim 4 recites a series of steps. However, the invention, as claimed, is directed to the manipulation of an abstract idea with no practical application in the technology arts, there is no physical transformation performed in the claim nor providing a concrete, useful, and tangible result. The claim 6, recites ***"if the string has not been associated with a cluster with this value of Ts: for every unique set of Y +1 n-grams Tuy in the string*** $T_{1...R}$, *except S:* ***clustering the string with a cluster associated with the Y = 2 n-gram group Ts-*** T_{uy}". These limitations do not produce any useful, concrete and tangible result. Actually this limitation does not produce a result under the condition when the string has been

associated with a cluster to form the statutory subject matter under 35 USC 101.

The dependent claims 7 and 8 are rejected for fully incorporating the errors of their respective base claims by dependency.

Claim 10 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Even though there is physical transformation performed in the claim, however, such physical transformation does not produce a useful, concrete and tangible result. The claim 10 recites, "otherwise, do nothing". Such a limitation does not produce any useful, concrete and tangible result. Applicant is advised to amend the claims to show the series of steps as recited in claim 1 produce a tangible result ***being executed*** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 11-12 are rejected for fully incorporating the errors of their respective base claims by dependency.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean M Corrielus
Primary Examiner
Art Unit 2162

December 22, 2006